

**Oregon Tualatin Valley
Amateur Radio Club**

The OSCILLATOR

NOVEMBER 2009

Issue 2009:11
Our 31st Year

The Oregon Tualatin Valley Amateur Radio Club is a special service club related to ARRL:
The National Association for Amateur Radio. We seek to advance the Amateur Radio
Service through:

- ⇒ Education and Training of new and licensed amateurs
- ⇒ Public Service and Emergency communication
- ⇒ Hobby nets, contests and meetings
- ⇒ Social events

Membership is available to anyone. An amateur radio license is not required.

SLATE OF NOMINEES FOR 2010 BOARD

In December, we elect four officers and trustees for our Board of Directors. We will elect members to serve as President, Vice President, Secretary, and Treasurer. In addition, three positions as Trustee are up for election. Officers serve for one year and may be re-elected. Trustees serve two-year terms. Any number of members may stand for election in any position. We encourage competitive elections.

OTVARC uses an Election Committee to identify members' interest in standing for election, and to report a candidate slate at the November Members Meeting. Nominations are solicited from the floor at that time. Ballots are prepared and sent to members with return due by 6:00 pm on December 9th, the December meeting. At the time The OSCILLATOR was prepared, these members have agreed to stand for the office shown:

President:	Pat Roberson N7PAT
Vice President:	Don Baldwin AA2V
Secretary:	Jennifer Roberson K7JLR
Treasurer:	Alvin Carlson KB7VHI
Trustee (Vote For Three):	JD Fort K7JDF
Ron O'Connor KD7VIK	Phil Kane K2ASP
Robert Crocker WN7O	Karl Anderson NM7N
Herb Hirst W7HLH	Mel Sutton KB7PVW

Holiday Party - Page 4

CLUB MEETING

Wednesday, November 11th

Our club meeting will be held at The Peppermill Restaurant in Beaverton on Wednesday, November 11th. Come at 6:00 PM for interaction with other club members and enjoy a meal off the menu.

Our Meeting and Program begin at 7:00 PM. This month we will recall the excitement of the K5D Desecheo Island DXpedition last February. The Slate of Nominees will be reported and Nominations from the floor received.

Guests are always welcome and an amateur radio license is not required.

SHERWOOD EMERGENCY RADIO FACILITY

When Sherwood School District announced two new schools in my neighborhood, I decided to encourage development of emergency communications capability within these new facilities. Edy Ridge Elementary and Laurel Ridge Middle School are located in the same block on Copper Terrace in Sherwood. They would serve as shelter facilities for our area, including my own Oregon Trail subdivision, in the event of a disaster.

The school district supported the endeavor with significant funding, time and effort toward the station. Portland Metro Red Cross participated in the planning process. The building plans included the radio station. Conduit, grounding, support structures for amateur radio equipment, wiring and antennas were carefully specified. The schools are now complete and open and the room is ready.

The next phase for the emergency radio facility will be the purchase and installation of antennae, wiring, cabling and lightening arrestors for the room. I am working to raise funds to support this phase. Our Homeowners Association has been asked to help raise funds, and now I'm asking for help from the Amateur Radio community. The total cost will be about \$2,000.00. If you'd like to contribute, contact me and we'll arrange for your contribution to be tax deductible. If you'd like to help me raise funds, contact me and we'll work together.

James Bryant KD7WZI (kd7wzi@arrl.net)

16 DEGREES 38 MINUTES EAST

I've got a compass, what else do I need to find true north?

Magnetic declination is the angle between magnetic north and true north. If the calculation results in a positive number, declination is east of true north. If the calculation results in a negative number, declination is west of north. For Oregon, declination has been positive (east of true north) since records began in the 1780s. For Hillsboro, Oregon, the declination has ranged from 16 degrees 17 minutes east in 1780 to a high of 22 degrees 35 minutes east in 1920. Currently, it is 16 degrees and 38 minutes east. Notice that it followed a 140 year period to its peak, and has taken 90 years to come back near its 1780 measurement. It has moved upward smoothly, and continues downward on a smooth pattern. Talk about "Rock and Roll."

The Earth acts like a great electro-magnet. It is surrounded by a magnetic field. The field changes with time and location on the Earth. The Earth's field is like a field generated by a dipole magnet, that is it has a north and south pole. The axis of the dipole is offset from the axis of the Earth's rotation by approximately 11 degrees. This means that the north and south geographic poles and the north and south magnetic poles are not located in the same place.

At any specific time, the magnetic field is described by direction and intensity. These are measurable. The parameters measured are the magnetic declination (D), the horizontal intensity (H), and vertical intensity (Z). From these elements, all parameters of our magnetic field can be calculated.

The Earth's magnetic field is actually a composite of magnetic fields generated by a variety of sources. These fields are imposed on each other and through inductive processes interact with each other. The most important of these geomagnetic sources are:

- the Earth's conducting, fluid outer core (~90%);
- magnetized rocks in Earth's crust

CONTEST UPDATE

The Annual CQ WorldWide SSB Contest was held October 23 - 25, 2009. Oregon Tualatin Valley Contesters, an affiliated group, entered as a Multi - Single Station using their W7TVC callsign. We'll have a story in the December issue of THE OSCILLATOR.

Upcoming Contests of interest include:

2009 ARRL November Sweepstakes

CW: November 7-9, 2009

SSB: November 21-23, 2009

24 Hours Operating out of 30 Available

1:00 PM PST Saturday to 7:00 PM PST Sunday

Check out the exchange, rules, etc at:

www.arrl.org/contests/rules/2009/novss.html

2010 North American QSO Party

CW: January 10 to January 11

SSB: January 17 to January 18

12 Hour Operating Period

10:00 AM PST Saturday to 10:00 PM PST Saturday

2010 7th Call Area QSO Party

All Modes

May 2, 2010

5:00 AM PST to 11:00 PM PST Saturday

c. fields generated outside Earth by electric currents flowing in the ionosphere and magnetosphere

d. electric currents flowing in the Earth's crust (usually induced by varying external magnetic fields)

e. ocean current effects

Want to learn more? NOAA has compiled a list of useful links. Go to:

<http://www.ngdc.noaa.gov/geomag/servers.shtml>.

You can learn the present and historic declination for your location by going to

<http://www.ngdc.noaa.gov/geomagmodels/Declination.jsp>.

HAMFESTS & CONVENTIONS**6 March 2010****Electronics Show and Fleamarket****Mike & Key Amateur Radio Club**www.mikeandkey.org/flea.htm**Talk-In: 146.82/22 (PL 103.5)****Michael Dinkelman N7WA****22222 148th Avenue SE****Kent, WA 98042****253-631-3756****n7wa@arrl.net****10 - 11 APRIL 2010****CommAcademy 2010****West. Washington Med Services Team**www.commacademy.org**Marina Zuetell N7LSL****PO Box 15624****Seattle, WA 98115****206-524-6567****n7lsl@arrl.net****4 - 6 JUNE 2010****SEA-PAC****NW Division ARRL Convention****Seaside Convention Center, Seaside Oregon**www.seapac.org**C. Wayne Schuler AI9Q****16414 NE 21st Street****Vancouver, WA 98684****360-892-5580****ai9q@arrl.net**

Your business advertising in THE OSCILLATOR is seen each month by more than 200 members who read THE OSCILLATOR. To include your "Business Card" ad (\$48.00 annually) or "Display" - HRO size ad (\$60.00 annually), contact **Maureen O'Rourke** at 503.591.9641.



Your lips will say "Thank you"
when you apply Oregon Trail Lip Balm.
Don't forget it makes a useful stocking stuffer!

OREGON TRAIL LIP BALM

Created by: Maureen O'Rourke KA7LAP
mcorourke@netzero.com

Use Oregon Trail Lip Balm
Available at Hanks, Hillsboro & Beaverton Pharmacies



Karl Anderson NM7N
Broker

DIRECT: 503-608-5206

CELL: 503-863-4894

FAX: 503-590-7606

karlanderson@meadowsgroup.com
www.meadowsgroup.com

12655 SW North Dakota Street
Tigard, Oregon 97223

DC POWER**Anderson Connectors & More****Wes Allen, K7WWG****665 SW 167th Ave • 503-531-4081****Beaverton, OR 97006**e-mail: sales@dcpwr.comWeb: www.dcpwr.com

Have we missed your birthday?
Likely we do not have
your correct date in our database.
Send updates and corrections to
otvarc@gmail.com

Happy November Birthday

1	Donald L. Stettler	KK7TN	11	Kathy George	KC7USE
1	Cindy Ward	AD7PS	16	Geoffrey Bunza	AD7JP
2	Steven Ward	AD7OG	16	James Boyd	K7MKN
3	Ardyce Moore	AA7SW	19	Steve Johnson	N7VIC
5	Gerald Davis	KJ7OM	23	Naomi Ballard	KD7JZW
6	Patrick Colton	KC7TOA	23	Bob Jenkins	W7BKN
7	Byron Windhorst	KD7NWV	26	Andy Ziemann	KE7AUB
8	Paul Schaff	W7BBG	27	Mary Berg	N7TRW
8	Art Albin	W7GWR	28	Linda Sutton	KC7YTD
8	John Core	KX7YT			

EAGLE CAP EXTREME DOG SLED RACE



January 13-16, 2010...more than 200 volunteers will join together in Joseph, Enterprise and Halfway, Oregon to support the 6th Annual Eagle Cap

Extreme Sled Dog Race. The Race brings Mushers and Teams from across the country to run through the Wallowa-Whitman National Forest, which contains the Eagle Cap Wilderness. Two races are run, 100 and 200 mile events. The Eagle Cap Extreme Race is a Qualifier for the legendary races in Alaska and Canada, the Iditarod and Yukon Quest.

For safety and logistical support... checkpoints are established across the Trail with checkpoints for 2010 at Salt Creek Summit, Ollokot Campground, Fish Lake, Trinity, Cornucopia and Halfway. Headquarters for the Race are located in Joseph at two different locations. Checkpoints are staffed with volunteers who provide shelter, food, veterinarian care, logistic support, snow-machine transportation and a multi-layered communications network. For 2010, the checkpoint communication modes available will be land-line, internet, satellite tracking devices (SPOT), satellite phone and amateur radio at checkpoints. We are excited to invite Amateur Radio Operators to the 2010 event. More than 40 amateurs gave their expertise to the 2009 race utilizing the VHF/UHF network established by the race. The support of Central Idaho Amateur Club members and repeater made it happen for year one of amateur radio involvement.

Since last year, Scott Hampton KB7DZR has built and installed a local VHF repeater that will serve as another layer of reliability.

Amateur Radio at Eagle Cap Extreme...We are in the process of creating a special event Ham Club and Web page for the 2010 Eagle Cap Extreme. Check out our progress under COMMUNITY, then AMATEUR RADIO: www.eaglecapextreme.com.

This year, interested Amateur Radio Operators are being invited to exercise their net skills in an exciting winter community-service setting.

FREE TECHNICIAN CLASS IN NOVEMBER

November 7, 14, 21
1:00 - 4:00 pm

Tualatin Valley Fire & Rescue
Station 67
13810 SW Farmington Road
Beaverton

Contact Janet Bell WB7FJC with questions or to Register for the classes.

Janet Bell at 503.648.4147 or

The Communications Volunteer is vital to passing 3rd party traffic, as well as providing support for critical situations and Search-and-Rescue efforts.

Law enforcement from Wallowa and Baker Counties, SAR Teams, and U.S. Forest Service personnel participate as volunteers and in a professional role during the Race. Communication volunteers are vital to providing real time information and coordination for general messaging, logistics and in support of critical situations through appropriate communication modes.

To learn more, please ask me via email for a detailed job description and volunteer application.

If you would like to be part of our Amateur Radio Committee Project Management Team, email me as well. Please stop by www.eaglecapextreme.com supplied by EONI.com to learn more.

Depending on the level of Amateur Radio Operator participation... we may establish a Special Events Station to operate during the Race. These are exciting times for us and invite join us to exercise your skills in a challenging environment to a non-profit event, Eagle Cap Extreme!!

Clyde Raymer, Jr. KL0CW
president@eaglecapextreme.com

TRAVELERS' Thanksgiving Potluck

The TRAVELERS' November Campout will be held at Wandering Spirit RV Park in Grand Ronde [28800 Salmon River Hwy - Oregon Highway 18], November 13 - 15, 2009. Members of the group will be on site earlier. If you plan to attend, you need to check in with Geno Buell KA7KBH at 503.614.0563 or make your reservation as soon as possible with the park, 503.879.5700 (FAX: 503.879.5171).

The TRAVELERS' are invite all OTVARC members to join them for the annual Saturday night Potluck Dinner. The group provides turkey and ham (with gravy). Participants are asked to bring salads, vegetables, and dessert. Let your plans be known to Geno.

The Wandering Spirit Park provides a convenience bus to the Casino. Friday evening the group will gather for a community dinner there.

Questions? Give Geno Buell a call!

Give Your Generator Some Space

The National Institute of Standards and Technology (NIST), the same folks that bring you WWV, publish a monthly newsletter called NIST Tech Beat. Here's an item from the 10/6/09 issue of NIST Tech Beat that will be of interest to radio amateurs:

To subdue the steaming heat of hurricanes or to thaw out during a blizzard, gasoline-powered, portable generators are a lifeline during weather emergencies when homes are cut off without electricity. But these generators emit poisonous carbon monoxide - a single generator can produce a hundred times more of the colorless, odorless gas than a modern car's exhaust. New research from the National Institute of Standards and Technology (NIST) shows that to prevent potentially dangerous levels of carbon monoxide, users may need to keep generators farther from the house than previously believed - perhaps as much as 25 feet.

Up to half of the incidents of non-fatal carbon monoxide (CO) poisoning reported in the 2004 and 2005 hurricane seasons involved generators run within 7 feet of the home, according to the U.S. Centers for Disease Control and Prevention (CDC).

Carbon monoxide can enter a house through a number of airflow paths, such as a door or window left open to accommodate the extension cord that brings power from the generator into the house. While some guidance recommends 10 feet from open windows as a safe operating

distance, NIST researcher Steven Emmerich says the "safe" operating distance depends on the house, the weather conditions and the unit. A generator's carbon monoxide output is usually higher than an automobile's, he says, because most generators do not have the sophisticated emission controls that cars do.


"People need to be aware that generators are potentially deadly and they need to educate themselves on proper use," Emmerich says. With funding from CDC, NIST researchers are gathering reliable data to support future CDC guidance.

NIST building researchers simulated multiple scenarios of a portable generator operating outside of a one-story house, using both a test structure and two different computer models—the NIST-developed CONTAM indoor air quality model and a computational fluid dynamics model.

The simulations included factors that could be controlled by humans, such as generator location, exhaust direction and window-opening size, and environmental factors such as wind, temperature and house dimensions. In the simulations the generator was placed at various distances from the house and tested under different weather conditions.

"We found that for the house modeled in this study," researcher Leon Wang says, "a generator position 15 feet away from open windows was not far enough to prevent carbon monoxide entry into the house." Go To Page 7, Generator

WORLDWIDE DISTRIBUTION



HAM RADIO OUTLET

11705 SW PACIFIC HWY
(99W) SUITE Z
PORTLAND, OR 97223

SERVING YOU:
Leon, W7AD, Manager
and
Dan, N7UDE

Now purchasing select estates
and used equipment on the spot.
Contact Leon

Call toll-free from OR, WA, ID, AK
1-800-854-6046
In Portland 503-598-0555
Fax 503-684-0469



PORTLAND, OR ANAHEIM, CA DENVER, CO OAKLAND, CA
PHOENIX, AZ SALEM, NH SAN DIEGO, CA NEWCASTLE, DE
SUNNYVALE, CA VAN NUYS, CA WOODBRIDGE, VA

LUNCH BUNCH

Join us for LUNCH BUNCH
Saturday, November 28, 2009
1:30 PM

Si Senior
11900 SW Beaverton Hillsdale Highway
Beaverton, Oregon

Talk-In: W7OTV - 146.960

Information?
Linda KC7YTD
503.246.8879

CLUB NET??

Are you interested in an OTVARC NET on the W7OTV Repeater 146.96 MHz (-)? The Board is considering establishing a net on the Monday evenings prior to Club Meetings. It would be an informal net to pass information among members. If you'd be interested, email JD Fort k7jdf@arrl.net.

OTVARC ADDRESS:
880 NE 25th Ave Ste 2-160
Hillsboro OR 97124-6258
otvarc@gmail.com

HOLIDAY PARTY - DECEMBER 9TH

The Annual Holiday Social will be a dinner, held on our regular December 9th meeting date, at Meriwether Golf Course Restaurant, 5200 SW Road Bridge Road, in Hillsboro. Mel Sutton KB7PVW is serving as Coordinator this year.

Members, and their guests, will pay \$10.00 per person, which includes the meal and a ticket in the drawing for the "big prize." Payment will be at the door, checks made out to OTVARC. The \$17.75 dinner price is being subsidized by the Club. A brief meeting will be held to report election results.

A No-Host Cocktail Hour at 6:00 pm will be followed by our Turkey Dinner at 7:00 pm. The optional "White Elephant Exchange" is back by popular demand this year. Exchange gifts valued at \$10.00. Please, no Gag/Joke Gifts.

Reservations for the Holiday Dinner will be received by email at otvarc@gmail.com or at the club postal address, 880 NE 25th Ave, Ste 2-160, Hillsboro, OR 97124. The deadline for reservations is December 2nd. Questions, Mel KB7PVW, 503.246.8879.

CLUB TRAILER PROJECT

Last year, Gene Buell KA7KBH, gifted a travel trailer to the club for use as a portable Communications Center. The gifted trailer has replaced the construction trailer the club has used for years for emergency communications, demonstrations, Sea-Pac, and Field Day. Our thanks to Geno, long an active member and former president, for his generous gift.

The former communications vehicle was offered to Washington County ARES and various MARS units. It is being given to Army MARS. JD Fort K7JDF and Tom Nelson K7TDN are making the necessary arrangements for the transfer for a new assignment.

JD Fort has accepted appointment as chair of the Trailer Renovation Project. On Saturday, October 31, 2009 the winterizing and initial alterations began. If you want to participate in the alterations and upgrades, contact JD at K7JDF@arrl.net.

GENERATOR, From Page 3

Winds perpendicular to the open window resulted in more carbon monoxide entry than winds at an angle, and lower wind speeds generally allowed more carbon monoxide in the house. "Slow, stagnant wind seems to be the worst case because it leads to the carbon monoxide lingering by the windows," Wang explains. Researchers determined that placing the generator outside of the airflow recirculation regions near the open windows reduced carbon monoxide entry.

In the next phase of the study NIST will model a two-story house that researchers believe will interact with the wind differently. NIST researchers also have worked with the Consumer Product Safety Commission on related work. (See: "NIST to Study Hazards of Portable Gasoline-Powered Generators," NIST Tech Beat, March 5, 2008.)

The generator study can be downloaded at <http://fire.nist.gov/bfrlpubs/build09/PDF/b09009.pdf>.

By Dan Romanchik, KB6NU

* L. Wang and S.J. Emmerich. Modeling the Effects of Outdoor Gasoline Powered Generator Use on Indoor Carbon Monoxide Exposures. (NIST Technical Note 1637,) 2009.

SHORTWAVE DATABASE

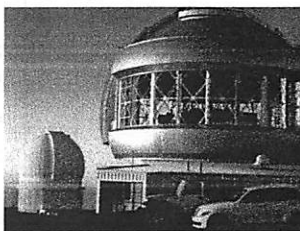
Many amateur radio operators became interested in ham radio as Shortwave Listeners (SWLs). Listening to stations from around the world was an entry point to getting on the air themselves.

Other hams wonder about the signals with which they compete on shared frequencies. We recently celebrated the move to take Shortwave Broadcasters off one megahertz of 40 Meters. It's nice to operate in that segment without the massive AM signals.

Here is the URL for a Japanese site that maintains a Shortwave database. Enjoy:

<http://www.geocities.jp/binewsjp/bib09.txt>

Canada-France-Hawaii Telescope



The Canada-France-Hawaii Telescope (CFH) observatory hosts a world-class, 3.6 meter optical and infrared telescope. The observatory is located atop the summit of Mauna

Kea, a 13,779 foot dormant volcano, located on the island of Hawaii. The CFH Telescope became operational in 1979. The mission of CFHT is to provide a versatile and state-of-the-art astronomical observing facility which is well matched to scientific goals and fully exploits the potential of the Mauna Kea site.

The Observatory headquarters are located in Waimea (known as Kamuela by the US Postal Service) since 1977. Waimea is a small country town of 7,000 nested at 2,500 feet in the saddle between the Mauna Kea volcano and the Kohala mountains. Named by the 2000 Robb Report as one of the 10 most desirable places to live in the United States, it has retained its 150-year old Paniolo (cowboy) culture but offers conveniences of modern life. CFHT astronomers conduct their own science projects and publish research papers.

Waimea-Kamuela is one of the most populated amateur radio places in Hawaii. There are more than sixty licensed hams and five clubs licensed there. One group, the Hawaii West Amateur Radio Society, has a repeater at the 8,000 foot level on the Hualalai Volcano. Hualalai is the third youngest and third-most active volcano on the Island of Hawai'i. Six different vents erupted lava between the late 1700s and 1801, two of which generated lava flows that poured into the sea on the west coast of the island.



In the distance of the picture above, you'll see Mt. Haleakala on the Island of Maui, more than 75 miles away!

NORTHWESTERN DIVISION ARRL CONVENTION
SEASIDE CONVENTION CENTER
Seaside Oregon
June 4 - 6, 2010



OREGON TUALATIN VALLEY
AMATEUR RADIO CLUB
880 NE 25th Ave. Ste 2-160
Hillsboro OR 97124-6258

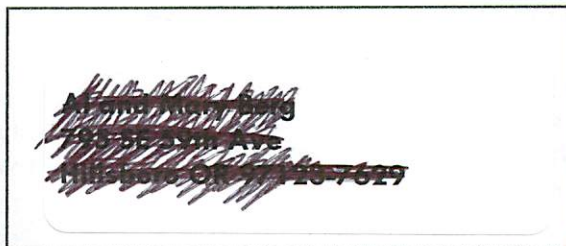
PORTLAND OR 972

02 NOV 2009 PM 2 L



FIRST CLASS MAIL

Web: WWW.OTVARC.ORG
w7otv@arrl.net
Simplex: 147.54 MHz
Repeaters: 146.96 MHz (Goat Mtn)
223.94 MHz (Goat Mtn)
440.250 MHz (Goat Mtn)
440.350 MHz (127.3 KGON Tower)
Editor: Everett W6ABM w6abm@arrl.net



CLUB MEETING
NOVEMBER 11TH

5712347623

